



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0450; Project Identifier MCAI-2021-00854-A; Amendment 39-22092; AD 2022-13-06]

RIN 2120-AA64

Airworthiness Directives; Diamond Aircraft Industries Inc. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Diamond Aircraft Industries Inc. Model DA 40, DA 40 F, and DA 40 NG airplanes. This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as baggage nets installed with defective buckles, which may result in failure of the baggage net to restrain the baggage or cargo, which could lead to injury to the occupants in the case of an emergency landing. This AD requires identifying and replacing the affected part. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Diamond Aircraft Industries Inc., Att: Thit Tun, 1560 Crumlin Road, London, N5V 1S2, Canada; phone: (519) 457-4000; email: T.Tun@diamondaircraft.com. You may view this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. Service information that is incorporated

by reference is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0450.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0450; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the MCAI, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Chirayu Gupta, Aviation Safety Engineer, New York ACO Branch, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7300; email: Chirayu.A.Gupta@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Diamond Aircraft Industries Inc. Model DA 40, DA 40 F, and DA 40 NG airplanes. The NPRM published in the *Federal Register* on April 8, 2022 (87 FR 20781). The NPRM was prompted by MCAI originated by Transport Canada, which is the aviation authority for Canada. Transport Canada issued AD CF-2021-24, dated July 21, 2021 (referred to after this as “the MCAI”), to address an unsafe condition on all Diamond Aircraft Industries Inc. Model DA 40, DA 40 D, DA 40 F, DA 40 NG, and DA 62 airplanes. The MCAI states:

Diamond Aircraft Industries Inc. (DAI) has received reports of defective buckles installed as part of the baggage nets on DA 40 NG and DA 62 aeroplanes. An investigation revealed a quality escape in the manufacturing of the Quick Fix Baggage Net Assembly, part number (P/N) D44-2550-90-00 and P/N D67-2550-90-00_02, by the supplier. P/N D44-2550-90-00 baggage nets can also be installed on DA 40, DA 40 D and DA 40 F aeroplanes. The baggage nets installed with defective buckles may not maintain sufficient holding force to restrain the baggage or cargo that is carried in the same compartment as passengers, and consequently,

may not provide adequate means to protect the passengers from injury.

This condition, if not corrected, could result in the failure of the baggage net to restrain the baggage or cargo, which could lead to injury to the occupants in the case of an emergency landing.

DAI undertook a voluntary campaign to replace all defective Quick Fix Baggage Net Assemblies. However, DAI was unable to complete the campaign in its entirety, and therefore, a number of aeroplanes with defective baggage nets that have not yet been replaced, remain in operation.

As a result, DAI issued Mandatory Service Bulletin (MSB) 40-093, MSB D4-110, MSB F4-039, MSB 40NG-065 and MSB 62-028, providing accomplishment instructions to replace the defective Quick Fix Baggage Net Assemblies.

This [Transport Canada] AD mandates the removal and replacement of the affected baggage nets. This [Transport Canada] AD also renders any affected baggage nets not eligible for installation as a replacement part on DA 40, DA 40 D, DA 40 F, DA 40 NG and DA 62 aeroplanes.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2022-0450.

In the NPRM, the FAA proposed to require identifying and replacing affected baggage nets. The FAA is issuing this AD to prevent failure of the baggage net to restrain the baggage or cargo. This unsafe condition, if not corrected, could result in injury to occupants in the case of an emergency landing.

Discussion of Final Airworthiness Directive

Comments

The FAA received one comment on the NPRM from an individual. The commenter supported the NPRM without change.

Conclusion

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data,

considered the comment received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed the following service information issued by Diamond Aircraft Industries Inc., which specify procedures for identifying, removing, and replacing the affected baggage nets.

- Mandatory Service Bulletin No. MSB 40-093, Rev. 0, dated July 6, 2021.
- Mandatory Service Bulletin No. MSB F4-039, Rev. 0, dated July 6, 2021.
- Mandatory Service Bulletin No. MSB 40NG-065, Rev. 1, dated July 6, 2021.

These documents are distinct since they apply to different airplane models.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Differences Between this AD and the MCAI or Service Information

The MCAI applies to Diamond Aircraft Industries Inc. Model DA 40, DA 40 D, DA 40 F, DA 40 NG, and DA 62 airplanes. This AD does not apply to Model DA 62 airplanes. The FAA plans to address Model DA 62 airplanes in future rulemaking.

In addition, the MCAI applies to the Model DA 40 D airplanes and this AD does not because it does not have an FAA type certificate.

Costs of Compliance

The FAA estimates that this AD affects 800 airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per airplane	Cost on U.S. operators
Replace Model DA 40, DA 40 F, and DA 40 NG baggage net	0.25 work-hour x \$85 per hour = \$21.25	\$382	\$403.25	\$322,600

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

- 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-13-06 Diamond Aircraft Industries Inc.: Amendment 39-22092; Docket No. FAA-2022-0450; Project Identifier MCAI-2021-00854-A.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Diamond Aircraft Industries Inc. Model DA 40, DA 40 F, and DA 40 NG airplanes (including Model DA 40 D airplanes that have been converted to Model DA 40 NG airplanes), all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 2550, Cargo Compartments.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as baggage nets installed with defective buckles. The FAA is issuing this AD to prevent failure of the baggage net to restrain the baggage or cargo. This unsafe condition, if not corrected, could result in injury to occupants in the case of an emergency landing.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

The following are “affected baggage nets” for purposes of this AD:

- (1) Quick fix baggage net assembly part number (P/N) D44-2550-90-00 with a date of manufacture of December 2015, November 2016, or March 2017; and
- (2) Quick fix baggage net assembly P/N D67-2550-90-00_02 with a date of manufacture of June 2016.

(h) Required Actions

(1) Within 12 months after the effective date of this AD or within 50 hours time-in-service (TIS) after the effective date of this AD, whichever occurs first, inspect each baggage net to determine whether an affected baggage net is installed on your airplane.

Note to paragraph (h)(1): The date of manufacture is located on the label with the abbreviation “DMF.”

(i) If an affected baggage net is installed, before further flight, remove the baggage net from service.

(ii) Before the next flight carrying baggage or cargo in the baggage compartment, install a baggage net that is not an affected baggage net in accordance with Figure 1 of the Accomplishment Instructions in the applicable service information in paragraph (i) of this AD.

(2) As of the effective date of this AD, do not install an affected baggage net on any airplane.

(i) Service Information

(1) Diamond Aircraft Industries Mandatory Service Bulletin No. MSB 40-093, Rev. 0, dated July 6, 2021, for Model DA 40 airplanes.

(2) Diamond Aircraft Industries Mandatory Service Bulletin No. MSB F4-039, Rev. 0, dated July 6, 2021, for Model DA 40 F airplanes.

(3) Diamond Aircraft Industries Mandatory Service Bulletin No. MSB 40NG-065, Rev. 1, dated July 6, 2021, for Model DA 40 NG airplanes.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(1) of this AD.

(2) For any requirement in this AD to obtain corrective actions from a manufacturer, the action must instead be accomplished using a method approved by the

Manager, New York ACO Branch, FAA; or Transport Canada Civil Aviation (TCCA); or Diamond Aircraft Industries Inc.'s Design Organization Approval (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(k) Related Information

(1) For more information about this AD, contact Chirayu Gupta, Aviation Safety Engineer, New York ACO Branch, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7300; email: chirayu.a.gupta@faa.gov.

(2) Refer to Transport Canada AD CF-2021-24, dated July 21, 2021, for more information. You may view the Transport Canada AD at <https://www.regulations.gov> in Docket No. FAA-2022-0450.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Diamond Aircraft Industries Mandatory Service Bulletin No. MSB 40-093, Rev. 0, dated July 6, 2021.

(ii) Diamond Aircraft Industries Mandatory Service Bulletin No. MSB 40NG-065, Rev. 1, dated July 6, 2021.

(iii) Diamond Aircraft Industries Mandatory Service Bulletin No. MSB F4-039, Rev. 0, dated July 6, 2021.

(3) For service information identified in this AD, contact Diamond Aircraft Industries Inc., Att: Thit Tun, 1560 Crumlin Road, London, N5V 1S2, Canada; phone: (519) 457-4000; email: T.Tun@diamondaircraft.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on June 13, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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